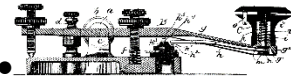




100 Years Bexar Wire

San Antonio Radio Club
W5SC



2019 No. 5

May 2019



Video on How the Internet Works being shown at the San Antonio Radio Club meeting on Thursday, February 14, 2019 at Grady's Barbeque



Rosendo Guzman, N5YBG, after his presentation of the How the Internet Works at the San Antonio Radio Club meeting on Thursday, February 14, 2019 at Grady's Barbeque

How the Internet Works

Our last meeting at Grady's Barbeque, 327 E. Nakoma Dr., San Antonio, TX 78216 at 7:00 p. m. on Thursday, April 11, 2019, was supposed to have featured a presentation by Paul Guido, N5IUT, on Computer Security 2.0. Unfortunately, Paul N5IUT was struck with a sudden illness on that day. Rosendo Guzman, N5YBG, stepped up and presented a video on the working of the internet. Often the internet is referred to as a cloud, but it is not. It consists of routing nodes and transmission links. Packets of information generated by a user each carry an address (think URL) and are routed through the internet network of routing nodes and transmission links based on the least congested path to the address. Packets may take different routes to get to the same address from the same upload of information to that address from a user. The video that Rosendo N5YBG showed the routing from user to host through the internet at each significant point in its transmission from source through routing nodes to the destination. For anyone who thinks of the internet as a cloud, the video should have exposed all present to the underlying components.

Rosendo, N5YBG, then launched into the rest the meeting. Officer and Committee reports were generally routine and are shown in the minutes starting on Page 3. Of particular note were the reports by Bill Craft, KD2HIQ, Joe Bruno, W5AUQ, and Tom O'Brien, AB5XZ.

Continued on Page 5)

CERT

Our next club meeting will be at 7:00 p. m. (1900) on Thursday, May 9, 2019, at Grady's Barbeque, 327 E. Nakoma Dr., San Antonio, TX 78216. The program will be presented by Michael Mitchell on Community Emergency Response Team (CERT), and he will have a CERT Go Kit.

SAN ANTONIO RADIO CLUB

PRESIDENT'S RADIOGRAM

NUMBER	PRECEDENCE	HX	STATION OF ORIGIN	CHECK	PLACE OF ORIGIN	TIME FILED	DATE
5	R		N5BYG		San Antonio, TX		May
TO							
W5SC							

CQ, CQ, CQ, our SARC Centennial Special Event Station is calling you. Would like to invite everyone to participate. Stop by for a few hours tour the San Antonio Museum of Science and Technology (SAMSAT). Bring your family and friends. It's a great occasion to celebrate with on the air activity around the globe.

Amateur Radio to celebrate and tell the world about the science we can help teach, the community service we can provide, and the fun we have. I encourage all members to join in the celebrations and promote Amateur Radio on the air.

Most of all is a great practice for Field Day 2018 coming soon in June 22nd and 23rd 2019!

Special Event Station W5SC/100

Rosendo M. Guzman, Jr.

N5YBG



Bexar Wire

Published monthly by:
San Antonio Radio Club



Rosendo Guzman N5YBG
President

Harold C. Fleischer, III AE5AS
Guest Editor
210-497-2532
haroldcf@swbell.net

Membership – Bill Craft, KD2HIQ Membership as of 2/28/19 100 Paid, 20 Free, 7 Family Members, 29 ARRL Members, for a total of 127 Members

Chairman of the Board Report – Harold C. Fleischer, III AE5AS - no Board activity in the last month so no report

Education and Training – David Finell N7LRY, Report has one radio left, advise Cray Lester K5MUG. Also stated will contact David Monroe at SAMSAT.

Executive –No Report

Field Day – Joe Bruno, W5AUQ, Yagi Antenna needs repair, the Trailer Light need to be repair, Number of antennas and HF Radios to operate.

Finance and Review – Paul Gudio N5IUT No Report

JOTA – John Douglas, W5NZK, Boys Scout Park, 24-hour operation overnight and voluntaries.
Nominating - inactive

VEC – Pat Knight AD5BR - April VE Team Report (revised 4/6/2019) The location for the April 27, 2019 VE session has **changed** since the regular location will be **temporarily** closed for remodeling. Ham tests will be given at 10 AM April 27 at:

Maverick Library, 8700 Mystic Park, San Antonio, TX 78254 (Near Bandera and Guilbeau) Please plan to be there before 10 AM. Early voting will be taking place, so allow extra time to get a parking place. If you have any questions, and to pre-register, please contact the VE team at hamtest@gmail.com or [210-273-5927](tel:210-273-5927). The General exam question pool will change July 1, 2019, so go ahead and study to upgrade soon! A great study site with flash cards is <https://hamstudy.org>

Centennial Commemoration (Temporary) - Tom O'Brien, AB5XZ - Patches, pins, and coins for sale after the meeting. Cash only. Special event operation #2 Saturday May 11 10am to 4pm at SAMSAT. See the newsletter for a writeup from the Bexar County Historical Commission on our Centennial from Dr. Sharon Skrobarcek.

Radio Fiesta – Committee to meet on April 17th, 2019 Bill KD2HIQ, Jeff ND8B, and Rosendo N5YBG. Starbucks on 15909 San Pedro Ave

Old Business (Motions carried over from previous meetings) - None

New Business (Must be presented as a motion) – None

Announcements for The Good of Amateur Radio

The Alamo Area Traffic Net is looking for a temporary net controller. This net meets Monday, Wednesday, and Friday at 1930. Local repeater 145.350 PL tone of 82.5 and repeater 443.025 PL tone of 82.5

Cray Lester K5MUG has QST for free.

Richard Elder WB5ACN stated he has Oscilloscope for Ham use, for sale.

Mike Harrison KB5KST stated that April 18 is World Amateur Radio Day (WARD), marks the 94th anniversary of International Amateur Radio Union (IARU).

The meeting was adjourned at 8:30 p. m.

Rosendo Guzman N5YBG
President

How the Internet Works (Continued from Page 1)

Bill KD2HIQ, Webmaster, reported on the website and social media. The effort to update and use these capabilities is paying off with traffic although it is lower than it was during Centennial Radio Fiesta. He then reported as Chairperson, Membership Committee, that are numbers are still rising. He gave kudos to Pat Knight, AD5BR, and the Volunteer Examiners who continue to bring in new members when they test.

Joe W5AUQ, Chairperson, Field Day Committee reported on the beam antenna needed for the May 11, 2019 Centennial On Air Event and on Field Day on June 21-23, 2019. The beam antenna had high SWRs when taken to the February 9, 2019 Centennial On Air Event. The reason why needs to be determined and the beam antenna fixed. A work period for Friday, April 12, 2019 for the beam antenna was announced. A couple of members said they would be there. He also asked people to post their calendars and to participate in Field Day – the extent is up to each person. This is a real good time to get on HF. Members were asked to volunteer as to what tables (frequencies) they want to work, what antennas they want to bring, and what radios they want to bring.

Tom AB5XZ, Chairperson, Centennial Commemoration Committee, reported on Centennial activities. SARC got an article written by Dr. Sharon Skrobarcek in the History Appreciation Committee Report for February-March 2019 to the Bexar County Historical Commission. Tom AB5XZ was her source for the article that included pictures. He is still looking for historical items to publish in the **Bexar Wire** and invited input from members. Also, he allowed as to how the sale of souvenir coins, patches, and pins is still underway, and how he still has some of each left.



Bill Craft, KD2HIQ, making his reports as Webmaster and Chairperson, Membership Committee at the April 11, 2019 meeting



Joe Bruno, W5AUQ, Chairperson, Field Day Committee making his report at the April 11, 2019 meeting



Tom O'Brien, AD5BR, Chairperson, Centennial Commemoration Committee making his report at the April 11, 2019 meeting



Centennial Commemoration

San Antonio Radio Club at the 1968 Hemisfair

By "Buzz" Jehle, N5UR

The W5SC Centennial Committee asked me for some remarks about operating SARC Club Station W5SC during Hemisfair in 1968. Here is what I can recall, open to suggestions and corrections.

Unfortunately, I can't describe the station, except to say it worked well and was cool, very cool (see below for what made it COOL)!

In August 1968, my call sign was WA8TFJ (It's now N5UR). I was 17 years old and decided I wanted to see America, mostly by hitchhiking and the occasional plane ride when I could get a great standby fare.

I left my home in Cincinnati and visited Chicago just in time for the ill-fated Democratic National Convention. I got out of Chicago on a \$40 airfare to San Francisco before the police got too ugly. WA6FNC (SK) showed me his city (San Francisco) and put me up for a few days. Next, I hitchhiked off to Los Angeles, Tijuana, San Diego, Disneyland, Las Vegas, Albuquerque, and then San Antonio.

I didn't know any hams there, so I got a room at the YMCA for (I believe) \$7 a night, but it was August and there was no air conditioning at the Y. My favorite place during the day was the great (cool) ham radio station W5SC at Hemisfair, which was air-conditioned! While I was in San Antonio, Russia invaded Czechoslovakia and a local reporter came by to see if I could contact anyone over there. Not a chance in August during daytime, and all the OKs (Czech amateurs) were off the air.

I loved the food and the Hemisfair, but I had to see Houston and New Orleans before my senior year of high school started, so I put my thumb out, and once I got to Highway 90, I was lucky to catch a ride all the way to Houston. The Interstate Highways were only piecemeal in those days.

I never saw a Hemisfair QSL card and did not get a copy of the logs from my time operating around August 20, 1968. If there is anyone who could help with either logs or QSL cards, I would be appreciative. I did have some photos, but they disappeared either in Hurricane Ike in Houston or in an F0 tornado here in Bandera, followed by a 4' flood.

I will just have to live with my fond memories. I do have some boxes of old slides so I will keep looking, but it's amazing how the colors fade, just as memories do.

(Edited by Tom O'Brien, AB5XZ)



Announcement for SARC Centennial Special Event Operation Saturday, May 11, 2019

This Saturday, May 11, SARC members will be able to celebrate the club's Centennial in true radio fashion. **This will be the second of FOUR Special Event operations during 2019. The others will be held in August, and November.**

We will be using the new station at San Antonio Museum of Science and Technology. (<http://samsat.org/>). The station is set up in an office space at the Museum and is supplied with equipment from the Museum's warehouse and some donations from SARC members.

The Special Event day will proceed in three parts:

1. Setup, done by a volunteer team headed by Joe Bruno W5AUQ, which will begin at 7:45 AM at the storage facility. The setup team will move the club's tower, beam, and rotator to SAMSAT on the club's trailer. They will then set up the antenna system, connect it, and test it for proper operation.
2. Operation, done by volunteer operators, will begin at 10 AM when the Museum opens. For this Special Event, Tom O'Brien AB5XZ will coordinate the station operation. Logging will be done on a computer provided by Tom O'Brien and will utilize logging software he provides. Operators will be given instruction on logging, antenna rotation, and transceiver operation. SARC members may operate the station between 10 AM and 4 PM, when the Museum closes. We will use special event call sign **W5SC/100**. Other amateurs may operate, but SARC members will have priority. Operation will be on the 20-meter band using SSB mode.
3. Teardown, done by a volunteer team headed by Joe Bruno W5AUQ, which will begin at 4 PM. The teardown team will disconnect the antenna system, disassemble it, and prepare it for transport back to the storage facility.

Contact Joe Bruno to volunteer for the Setup or Teardown team (or both).
jlbruno4433@gmail.com or 210.363.9500

Contact Tom O'Brien AB5XZ to sign up for operating time. There will be plenty of time/room for everybody.
ab5xz@arrl.net or 210.845.4966

Alamo Picture Revisited - 2

The Alamo Picture published the last two months is being republished this month with a more complete caption identifying the members of the San Antonio Radio Club that were there.

While progress has been made, there are still three unidentified individuals. This month, they are marked with red arrows. If you are one of them, just email Tom O'Brien (contact information on w5sc.org) with your location, e. g., on so-and-so's left, name, and call sign. Once everyone is identified, the photograph will be imported into Photo Shop and the caption added under the photograph such that that copy will automatically print with the caption. That version will be made available to all members upon request.

If we still have unidentified individuals next month, blow ups of the faces will be published to help get identifications.



Left to Right: David Finell N7LRY, Lloyd Swartz KF5ZHW, Rich Roudebush N4DCA, Unknown, Jim Griffith W5XP, George Harrison KB5KST, Emilio Ramirez AG5QP, Unknown, Fred Cruz KI5BYG, Jon D. Arbogast KG5YAR, Bill Craft KD2HIQ, Richard Elder WB5ACN, Steve Cerwin WA5FRF, Lyndon Woodall N5LYF, G. Bryan Clark WB5DRI, Rosendo Guzman N5YBG, Unknown, Virginia Check K5TQK, Mike Check K5UCQ, Tom O'Brien AB5XZ, Paul Guido N5IUT

Field Day 2019



There are several things to remember about Field Day in the San Antonio Radio Club (SARC). First, the priority is on eating well and learning. SARC keeps track of contacts and other Field Day points, but SARC is not trying to win its category, 4A (4 HF radios operating from emergency power). SARC is more interested in getting everyone, including visitors, on the air than in racking up contacts by having super experienced operators manning all radios.

The level of participation by each member of SARC is determined by the member himself or herself. There is a Friday tent set up activity with equipment load out. This runs 3-4 hours all together. Load out of

most equipment will be Saturday morning. The objective is to arrive on site at Shavano Park by 9:00 a. m. and to complete set up by 1:00 p. m. when the on-air portion officially starts. SARC operates all night and between 9:00 a. m. and 10:00 a. m. stops when the bands go dead. Tear down and load out than commences. By 1:00 p. m. to 2:00 p. m., load out is done and the equipment is taken back to the warehouse. By 3:00 p. m. or so, everything is secure, and everyone is on the way home. SARC has some people that do everything. The all-night people have been called Iron Radio Operators in the past. (They like the night because more bands tend to open for longer distances as night meaning more contacts.) SARC had one person who did nothing but set up and tear down one year. Some people cannot do Friday, but they do Saturday after soccer games or something until the evening. At least, you should show up for the BBQ supper at 5:30 p. m. on Saturday from Rudy's.

SARC owns one HF radio and one VHF/UHF radio. Both will go to Field Day. More radios are needed. SARC wants to run 4 HF, 1 VHF/UHF, and 1 Get On The Air (GOTA) station, which can either be HF or VHF/UHF. Hence, members are encouraged to bring radios. SARC will also need six (6) table captains who get the table set up and on the air. Table captains do not need to stay forever. One table captain is the GOTA operator for new hams. Let the Joe Bruno, W5AUQ, Chairperson, Field Day Committee know what radios you will bring and if you will be a table captain.

SARC owns a lot of antennas, but only a few will be brought out unless someone asks for a specific antenna and agrees to be the crew leader for setting it up. So far, two members of SARC have advised Joe Bruno, W5AUQ, Chairperson, Field Day Committee that they want to set up personal antennas at Field Day. There is no pre-established limit on who can set up personal antennas at Field Day. There is a lot of space, and it is anticipated that everyone who wants to set up a personal antenna along with SARC antennas will be able to do so.

Reminder: The following policies concerning Field Day 2019 antennas apply:

1. SARC will include in the antenna plan any and all personal antennas that a member wants to erect provided they are reported to the Chairperson, Field Day Committee by May 31, 2019.
2. SARC will include all personal antennas brought to Field Day without previous notification to the Chairperson, Field Day Committee, and assign them to open, probably peripheral areas in the integrated plan.
3. SARC will erect the following SARC owned antennas:
 - Trailer mounted Beam Antenna on Tower for 10M/15M/20M
 - 40M Dipole Antenna (same antenna mast at 75M dipole)

- 75M Dipole Antenna (same antenna mast at 40M dipole)
- MFJ-1522 VHF/UHF Dual Band Vertical Antenna
- 4. SARC will bring out any other SARC owned antennas if someone wants to use it, sponsor it, and becomes the crew leader for its erection:
 - Cushcraft R-7 Vertical Antenna for 10M/15M/20M/40M
 - Cushcraft R-5 Vertical Antenna for 10M/15M/20M
 - 6M Dipole
 - 10M Dipole
 - 15M Dipole
 - 20M Dipole
 - 75M Dipole (second one)
 - G5RV Antenna

SARC owns sufficient antenna masts that it can put up almost everything that it owns. SARC has sufficient guide ropes that it is not a problem either. SARC may even be able to lend some poles and ropes to erect personal antennas if the need is identified ahead of time.

Typically, members gang together to put up antennas whether they are personal ones or SARC owned. It is one of the better aspects of Field Day – hams helping each other out. SARC does not want to see effort expended on putting up a lot of SARC antennas where some are never used.

To summarize on antennas:

- If you have a personal antenna that you want to bring to Field Day, bring it.
- If you want to use a SARC antenna that is not in the plan yet for use, volunteer to be the sponsoring crew leader to set it up and take it down.

It is recognized that some members may not be able to commit ahead of time. That happens. It is acceptable to show up when you can at the last minute with or without whatever equipment, radios and equipment, that you can or want to bring.

Volunteer Examiners at Work

Pat Knight, AD5BR, Chairperson, Volunteer Examination Committee, and the Volunteer Examiners conducted another regularly scheduled test session on April 27, 2019. However, due to a remodeling project at the usual location of the Great Northwest Library, it was conducted at the Maverick Library instead. This was a late change, but it was well publicized through SARC's social media. Also, anyone pre-registering got the correct location information. There were a total of 5 candidates earning either new or upgraded licenses on April 27, 2019. The breakout was two (2) Technicians, two (2) Generals, and one (1) Amateur Extra.

The next regularly scheduled test session is at 10:00 a. m. on Saturday, June 22, 2019, at the Great Northwest Library. Earn a license or upgrade in the morning and then go to Field Day.

The General exam question pool will change July 1, 2019, so you are encouraged if you are studying now for General to take the General Exam no later than the June 22, 2019 session. A great study site with flash cards is <https://hamstudy.org>.

For more information, go to w5sc.org or email hamtest@gmail.com.

Unlicensed DXing at 12 cm: Grandkid-level Radio

By Tom O'Brien, AB5XZ

A few weeks ago, I purchased a couple of BBC Micro:BIT single-board computers. My intent was to “play computer” with my 7-year-old grandson Christopher. We opened the package and located the (free) web-based programming environment. It turned out, fortunately, that Christopher had already had some exposure to “Blockly”, a graphical drag-and-drop programming language. We quickly got through some of the starting examples and had a bit of fun with it.

Christopher had already been allowed to play with a Morse straight key at my station AB5XZ and had also talked cross-country on SSB. He surprised me by suggesting that we set up the Micro:BIT computers to talk to each other using Morse code. I said I would work on it, and we could try it out next time we got together.

I looked on the Micro:BIT web site and found (surprise!) a little program that used the built-in BLE (Bluetooth Low Energy) radio. It took a couple of minutes to load it into the IDE (the programming environment), compile it, and download it (Christopher had shown me earlier how to do the download).

Once I had transferred the program to the Micro:BIT boards, it was time to check it out. Turning on both boards, I pressed the “A” button, and a “dot” appeared on the little 5×5 LED array, on both boards! We had communication!



Christopher and Tom AB5XZ and their Micro:BIT “radios”

I labeled both boards with a legend: “A=dot B=dash shake=Over flip=Out”. Over displays an arrow, and Out displays an X. Time to test and try some DX!



Christopher and Tom AB5XZ with the labels on their Micro:BIT “radios”

Yesterday I took the two boards over to Christopher’s house and showed him how



Christopher and Tom AB5XZ field testing their Micro:BIT “radios” – note who is doing the walking

the boards did Morse code. We played room-to-room messaging for a bit, then took things outside for a distance test. I stood in Christopher's driveway, and he started walking, sending dots and dashes, toward the end of the block. He got halfway down the block before we lost signal – probably 150 or 200 feet. That may be a new record. It is certainly a personal best for us!

Thus, was born our experiment in 12cm (2.4 GHz) low power DXing.

Note: My research on BLE indicates that we can operate with a (slow code) CW net of up to 8 participating “stations”.



SAMSAT and Fiesta



The Port of San Antonio (old Kelly Air Force Base) had an official San Antonio Fiesta event called Fiesta de los Niños on April 20, 2019. It was set up right outside the front door of the San Antonio Museum of Science and Technology (SAMSAT). SAMSAT issues an invitation to the San Antonio Radio Club (SARC) to participate. SARC made a last-minute decision to participate. Harold Fleischer, AE5AS, and Rosendo, N5YBG, went to the Spark Shack at SAMSAT. From about 10:00 a. m. until 1:30 p. m., they operated from the Spark Shack on the ICOM 781 using SARC's vertical R5 antenna.

Rosenda N5YBG knew of a website located in California, KFS WebSDR HF with URL 69.27.184.62:8901, that gives an HF waterfall view of signals that it is receiving on various bands and modes, i. e., 160, 80CW, 80PH, 75PH, 40CW, 40PH, 20CW, and 20PH. He was able to pick up C@ C@ W5SC/100 W5SC/100 CQ CQ being called by Harold AE5AS on 20M Phone. This gave

both of them confirmation that the radio and antenna were working. For Rosendo N5YBG on his laptop, he was experiencing some stereo as he was hearing live and internet.

In the time that they were on the air, they made five contacts to include one (1) in Orlando, FL, one (1) in western North Carolina, one (1) in Arizona, and two (2) in Michigan where Michigan was running a state wide QSO contest. The log was kept on paper and Rosendo N5YBG took it to enter it in the Logbook Of The World (LOTR).

While SAMSAT was open and hosting activities, most of the action was actually outside right in front of SAMSAT's building. SARC's operators were told when leaving at 1:20 p. m. that the count was already up to 9,000 people.



View of Fiesta de los Niños in front of the SAMSAT building on April 20, 2019

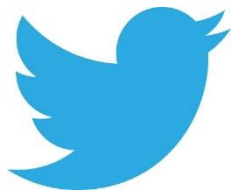


SARC has had a Groups.io. Its name is saradioclub.

The saradioclub Group.io is being used to publicize SARC business meetings. It can be used for other things like promotion of VEC testing and classes. Members of the saradioclub Group.io can and have asked each other technical questions or sought assistance.

The saradioclub Group.io is a closed group. To become a member, go to saradioclub.groups.io. (You may need to have a Groups.io account.) You will then need to select *Apply for membership in this group*. This generates a message. SARC members can expect approval to join the saradioclub Group.io in probably less than 24 hours.

SARC Tweets



Reminder: there are two active Twitter accounts for the San Antonio Radio Club. They are @SARadioClub and @ARadioFiesta.

The @SARadioClub is being used to publicize SARC meetings. It can be used for other things like promotion of VEC testing and classes.

As Radio Fiesta 2017 work has commenced, the @ARadioFiesta is being used again for the January 14, 2017 Radio Fiesta.

SARC members are encouraged to follow both Twitter accounts.

SARC Facebook



There is a San Antonio Radio Club – SARC (@saradioclub) Facebook Page.

The newsletter editor is making posts about SARC meetings and other activities. Any Officer, Committee Chairperson, or member who believes that they have information that should be posted to this page should contact the newsletter editor using the contact information for the newsletter editor on page 2 of this newsletter.

SARC members are encouraged to follow this Facebook Page.

SARC SLACK



There is a San Antonio Radio Club Slack team – w5sc.slack.com.

Slack teams are meant to foster communication between team members. Paul Guido, N5IUT, has established the w5sc.slack.com team for SARC. He has also established some channels. Think of the channels as topical areas.

To join send an email to Paul Guido, N5IUT, at radioteacher@gmail.com. In actuality, any team member already a part of the w5sc.slack.com can invite you, but Paul is known to be on it.

SARC has a website:

w5sc.org

Webmaster: Bill Craft KD2HIQ
Billc851@gmail.com
210-233-8863

Amateur Radio License Classes

Multiple classes planned for 2019.

For more information, contact:
David Finell, N7LRY
Instructor

SARC Meeting Dates for 2019 & Early 2020

May 9, 2019
June 13, 2019
July 11, 2019
August 8, 2019
September 12, 2019
October 10, 2019
November 14, 2019
December (None)
January 9, 2020
February 13, 2020
March 12, 2020
April 9, 2020

Meetings are held at Grady's Barbeque,
327 E. Nakoma Dr., San Antonio, TX
78216 at 7:00 p. m.

Meetings are held at Grady's Barbeque,
327 E. Nakoma Dr., San Antonio, TX
78216 at 7:00 p. m.

Come early and eat with other members coming early.

License Testing Dates for 2019 & Early 2020

June 22, 2019
August 24, 2019
October 26, 2019
December 28, 2019
January 11, 2020
February 22, 2020
April 25, 2020

Times and locations along with required document information can be found on SARC's website.

SARC does all of its licensing testing as a part of ARRL Volunteer Examiner Coordinator (VEC) organization so all of the Volunteer Examiners in SARC are duly authorized Volunteer Examiners of ARRL's VEC.

JOTA

Boy Scout Jamboree On The Air

This year's date is Oct 19, 2019.

More information will be available as the date draws closer.

Radio Fiesta 2020

January 11, 2020
Schertz Civic Center
See newsletter article for more information

Emergency Communications

If you are interested in emergency communications, contact:
JC Smith N5RXS

Field Day 2019

Setup: Friday, June 21, 2019
Operations: Saturday, June 22, 2019
& Sunday, June 23, 2019

Where SARC proves they are an eating group with a radio problem.

More information to follow, but hold these dates.